

## Abstract

A photocatalytic electric fan comprises a main body having a receiving tank therein. A motor is fixed in the receiving tank. A rotation shaft of the motor is connected with a fan blade. A lamp-fixing element is joined at an opening of the main body near the fan blade. A photocatalytic lamp is positioned on the lamp-fixing element. At least a photocatalytic lamp tube is disposed on the lamp. Each photocatalytic lamp tube is connected to an electric connection seat, a stabilizer, a starter, a switch, and a power source. A face net is joined at the other opening of the main body. The face net is rotatable. The photocatalytic lamp tube is a UV lamp tube with a glass-fiber-cloth sleeved outside. The glass-fiber-cloth has a photocatalytic coating formed of titanium dioxide.